X65 Function modules

User Documentation

FlexLink®

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Preface

Purpose of this manual

The purpose of this manual is to describe a number of operations that are intended for the user concerned. Here it becomes clear how the user can work as well and as safely as possible. By making use of clear illustrations and texts FlexLink wants to achieve a simple and safe way of working with the X65 function modules. This document contains remarks that point out a risky or specific situation to the user. In many cases this situation is provided with one of the symbols given below.

General warning for danger!

Warning for electrical voltage!

Attention, this is an important notice!

Compliance with the operations described in this document is important in order to prevent dangerous situations and unnecessary damage to the X65 system. Carefully keep this document! It is recommended to keep one copy near the conveyor system and one copy with your technical documentation.

Structure of the manual

The user's manual has been composed in such a way, that a number of operations can quickly and easily be found. This manual will not describe operations that are not meant for the user. It does, however, indicate what the user must do when carrying out a certain operation, for example calling in technical staff. FlexLink would like to point out to the user that section 1 Safety is to be read carefully.

Requirements of the user

The X65 Conveyor system may be operated by any adult person who has become acquainted with section 1 Safety. If the user is not technically qualified, he or she may not carry out any maintenance or repair activities on the system.

Note! *Maintenance activities on the system may only be carried out by a technically qualified person.*

NB: *Technically qualified employees means: employees that have followed an adequate training for carrying out the activities involved and have a good ability to read and understand the English language.*

1 Safety

The X65 function modules has been designed in such a way, that it can be used and maintained in a safe way. This holds for the application, the circumstances and the instructions described in the manual. Any person working with or on this system should study the manual and follow the instructions. It is the responsibility of the employer to make sure that the employee is familiar with and follows these instructions.

The company or the country in which the system is used may require extra safety measures. This particularly applies to the working conditions. This manual does not describe how these are to be complied with. In case of doubt, consult your government or safety officer!

1.1 System information

The project number and/or general drawing number shall always be specified when communicating with FlexLink with respect to the module.

Project number	See module nameplate
Module type:	Module
Date of manufacture	See module nameplate
Identification. no.	See module nameplate

Figure 1 Module nameplate

The modules nameplate is located on the module beam.

1.2 The most important safety conditions

At the moment that the X65 system is going to be operated by a user, the following safety conditions must be met:

- Only persons who have read and understood the operating instructions are allowed to operate, maintain and clean the system.
- Provide good ambient lighting to enable the operator to work well and orderly with the system.

1.2.1 General

- Incorrect use of the equipment can cause personal injury.
- Do not wear clothing or other articles that can fasten.
- Follow the instructions in this user manual when transporting the machine. FlexLink Components AB must approve all modifications or changes to this system.
- Only use recommended spare parts.
- Only authorised personnel may open electrical units.
- FlexLink is not responsible for damage if service on the equipment is not performed in accordance with this user manual.

1.2.2 Service technicians

Service technicians must have:

- Sufficient knowledge for reading technical information
- Ability to comprehend technical drawings
- Basic knowledge of mechanics
- Sufficient knowledge in the use of hand tools

1.2.3 Electricians

Electricians must have:

- Experience from similar installations
- Sufficient knowledge to work from drawings and wiring diagrams
- Knowledge of local safety regulations for electrical power and automation

To avoid risks, only experienced personnel with technical knowledge and experience may perform repair work on the electronics components.

1.2.4 Operators

To correctly use the equipment, operators must have appropriate training and/or experience.

1.3 Description of safety provisions

Before putting the system into operation some safety provisions are to be taken care of. The purpose of these safety provisions is to protect the user, the product and the system against undesired situations (damage). Without these safety provisions FlexLink cannot give a guarantee on any damage caused in absence of these safety provisions.

The table below gives a general description of the safety provisions required. Here it should be noted that only technically qualified employees are allowed to work on the settings of the safety provisions!

1.3.1 Noise level

The noise level produced by the X65 conveyor system is under 70 dB(A).

1.3.2 Power supply

Power such as electrical, pneumatic, etc.

Never bypass the safety system.

Before working on powered components (i.e. motors), pneumatic activators of power supply the main switch must be turned off and locked. The key is retained by the service technician until work is finished.

Examples of service work include:

- Disconnection of wiring/tubing
- Replacement of components, i.e. motors, etc.
- Service work performed on the machine that cannot be seen from the electrical cabinet.

For adjustment of photo-electric cells, inductive sensors, etc., power is required:

- Stop the system and wait until the moving parts have come to a complete stop.

1.4 Safety information

For a safe operation of the conveyor system a number of safety measures are to be taken. These include the following measures:

1.4.1 Power supply must be disconnected during installation (air and voltage).

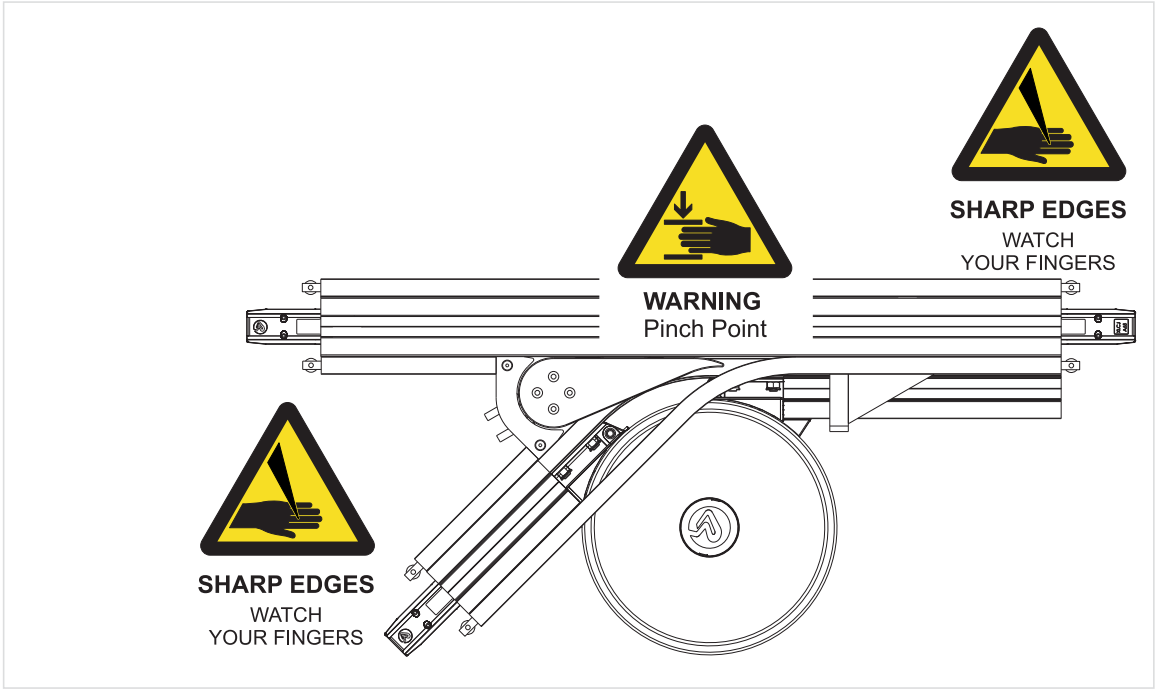


Figure 2 Sharp edges

1.5 Intended use

The X65 function modules are intended to be used with the X65 pallets, XLPP 100x128. All other use is the responsibility of the user.

2 Technical specification

2.1 Operating conditions

The circumstances under which the X65 conveyor system can be applied partly depend on the materials selected. FlexLink has defined a number of parameters within which the system would be allowed to function. Should the system still be applied beyond these limiting values, FlexLink cannot guarantee the good functioning of it.

Ambient temperature (in operation)	-20° to +35°C
During transport / storage	5 to +40°C
Relative air humidity (RH)	10% to 95%, not condensing
Lighting	Normal ambient lighting
Height	Up to max. 2000 m above sea level

2.2 Ordering information

XLUT 45 D, XLUT 45 M, XLUT 45 C, XLUT 90 D, XLUT 90 M and XLUT 90 C.

Question	Choices	Description code
Right/Left	Right/Left	Right/Left
Sensors	Yes/No	S/N
Photo eyes	Yes/No	PE-2/N
RFID	Yes/No	RF/N

Configuration example

One of the six above mentioned modules has to be chosen first. Then the questions in the configurator have to be answered.

Example of configurator string: Left-S-PE-2-RF

The choice sensor "Yes" includes sensors and brackets for indicating:

- Pallet in stop position.

The choice sensor "No" includes:

- Sensor bracket for pallet in stop position.

Sensors and brackets that always are included:

- Position of arm (in diverter and combined divert/merge modules).

The choice photoeyes "Yes" includes:

- Photoeyes
- Brackets for photoeyes (8050137).
- Reflectors (8050114)

The choice photoeyes "No" includes no brackets or reflectors.

The choice RFID "Yes" includes:

- Read/write head (5058152).
- Read/write head bracket (8050112).

3 Functions

3.1 Function description for Divert modules

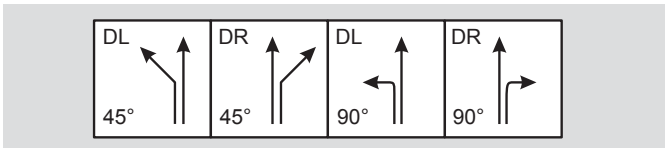
The diverter function gives the opportunity to split highway flow to two streams (satellite & highway), in a fully controlled way. The function is equipped with all needed parts to setup and run it, including set of sensors (not mandatory), RFID read/write head (not mandatory), fasteners and pneumatic actuators.

Excluded parts:

- Chain
- Slide rails for chain and guide rails
- Tubes for pneumatic circuit
- Pallets
- Cables (for sensors and RFID r/w head)

3.1.1 Diverters

Diverters are used to split a flow of pallets from one line into two. The lines can be in 45° or 90° angle.



The Diverter is an active unit with one infeed and two outfeed conveyors.

There are four different variants of the Diverter.

- Diverter, 45°, Left
- Diverter, 45°, Right
- Diverter, 90°, Left
- Diverter, 90°, Right

Initiators
B1 Pre-stop highway
B2 and B3 sensing pallet route
B4 and B5 position of diverter arm
B6 RFID head

Actuators
A1 Pre-stop. Single acting
A2 Arm. Double acting

Interfaces
B1-B5 M12-connector, 3-pin
B6 RFID, 4-pin (ASI)
A1 Ø 6 mm pneumatic hose
A2 Ø 6 mm pneumatic hose

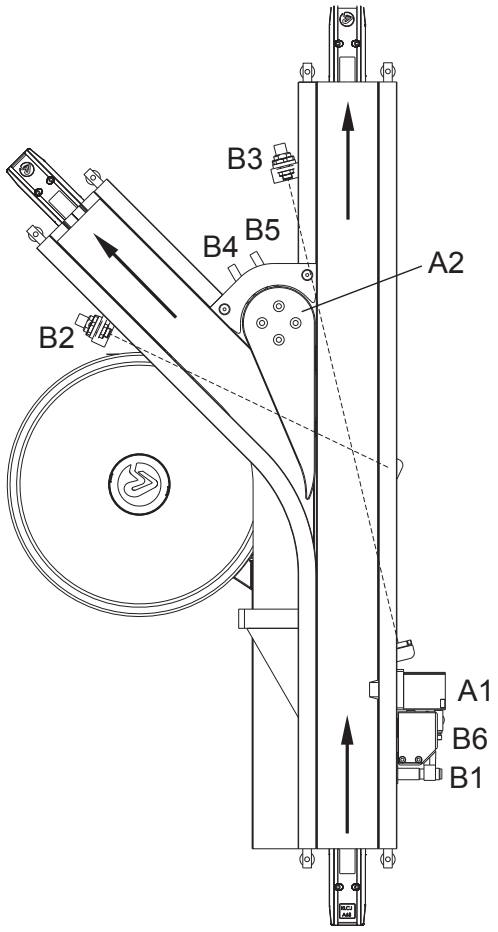


Figure 3 XLUT 45 D (also valid for XLUT 90 D)

Principle of operation

Diverting pallet to satellite:

A pallet on Highway is approaching. Sensor **B1** is activated which actuates stop **A1** which stops the pallet, if function is occupied.
Sensor **B2** and **B3** supervise the function area. If both sensors gives low signal the area is empty.

Straight passing through:

A pallet on Highway is approaching. The pallet activates sensor **B1** which actuates stop **A1** which stops the pallet if function is occupied.
Sensor **B2** and **B3** supervise the function area. If both sensors gives low signal the area is empty.

Function occupied

Before a pallet is let into the function the previous flow must be finished, the arm to be in right position and downstream receiver be ready to receive. Example: Previous flow was on satellite. Pallet enters on highway to go straight. Stop **A1** block the flow, then wait until **B2** and **B3** do not detect any pallets. Thereafter diverter change arm position. When downstream Highway is ready to receive, then pallet on highway is released by stop **A1**.

Diverter arm

The position of the diverter arm **A2** is indicated by sensors **B4** and **B5**.

Sensors

The primary function of in position sensor **(B1)** is to detect pallet placed in specific position. Additionally the sensor is placed in the way it can actuate stop (open/blocking) before pallet gets into contact with the stop up to conveyor speed 20 m/min.

RFID

The RFID head **B6** can be used to read/write RFID tag data on pallet. The data can be used to take flow decisions at crossings, for example at stop **A1**.

3.1.2 Cylinder details

Cylinder A1 "Pre-stop"

Type: Single acting with two ports.

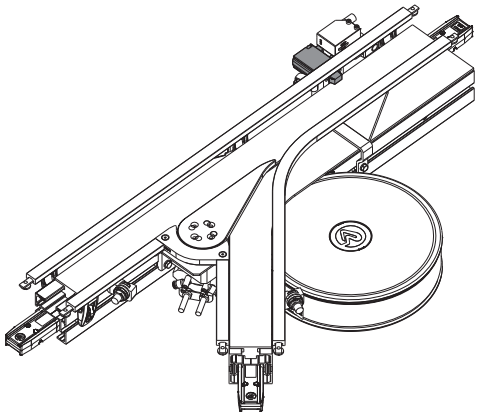
Function:

- Pressurized: Releases the pallet flow
- No pressure: Blocks the pallet flow

For safety reasons, the pallet stop is blocking the flow in case of a pressure drop, preventing pallets from travelling uncontrolled along the conveyor.

The stop should not re-block the flow while a pallet puck is in a position where it could be clamped.

It is recommended to re-block the flow after each pallet.

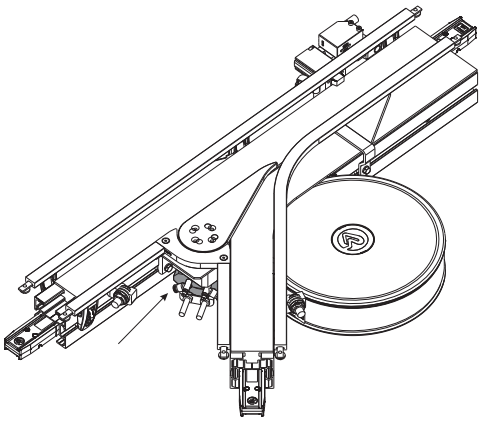


Cylinder A1

Cylinder A2 "Arm"

Type: Double acting

Function: Change the flow through the module.



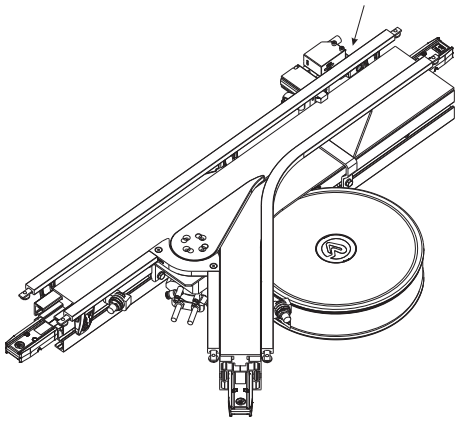
Cylinder A2

3.1.3 Sensor details

Sensor B1 "Pre-stop"

Type: Proximity switch, inductive
Position: Placed together with Pre-stop.

Function: Detects the initiator plate of the pallet before the pallet is stopped and stays active until the pallet leaves the stop.
The reason why the pallet is detected by the sensor before the pallet hits the stop, is to enhance the efficiency of the pallet flow. As the pallet is detected in advance, the controller has time to take a decision whether or not the pallet should be stopped. If it should pass, the stop changes state to ”Release flow” before the pallet reaches it.

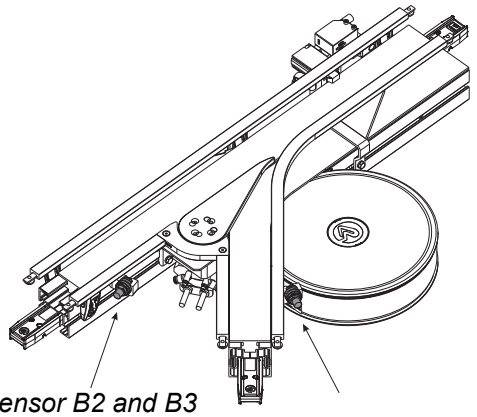


Sensor B1

Sensor B2 and B3 "Sensing pallet route"

Type: Photo eye.

Function: Detects if there is a pallet in the merging area. A new pallet must not be released from any of the stop positions before the merging area is clear.

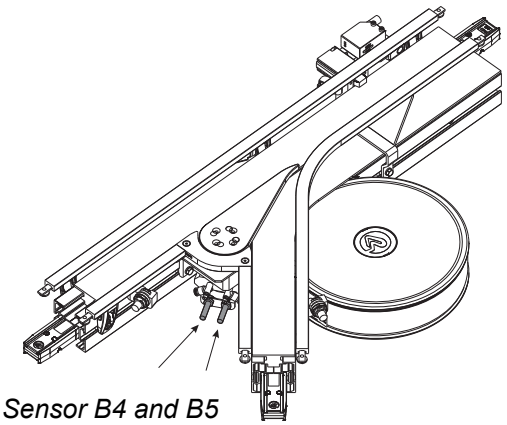


Sensor B2 and B3

Sensor B4 and B5 "Arm"

Type: Cylinder sensor
Position: Placed on the arm cylinder.

Function: Detects the arm position.



Sensor B4 and B5

3.2 Function description for Merge modules

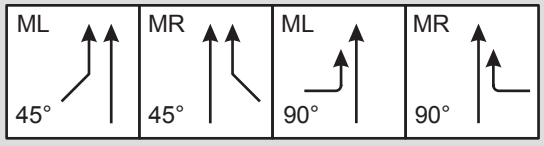
The merging function gives the opportunity to merge two flows of pallets (satellite to highway) in a fully controlled way. The function is equipped with all needed parts to setup and run it, including set of sensors (not mandatory), fasteners and pneumatic actuators.

Excluded parts:

- Chain
- Slide rails for chain and guide rails
- Tubes for pneumatic circuit
- Pallets
- Cables (for sensors)

3.2.1 Mergers

Mergers are used to combine the flow from two lines into one. The lines can be in 45° or 90° angle.



The Merger is an active unit with two infeed and one outfeed conveyor.

There are four different variants of the merger.

- Merger, 45°, Left
- Merger, 45°, Right
- Merger, 90°, Left
- Merger, 90°, Right

Initiators
B1 Pre-stop highway
B2 Pre-stop satellite
B3 and B4 Sensing pallet route

Actuators
A1 Pre-stop. Single acting
A2 Pre-stop. Single acting

Interfaces
B1-B4 M12-connector, 3-pin
A1 Ø 6 mm pneumatic hose
A2 Ø 6 mm pneumatic hose

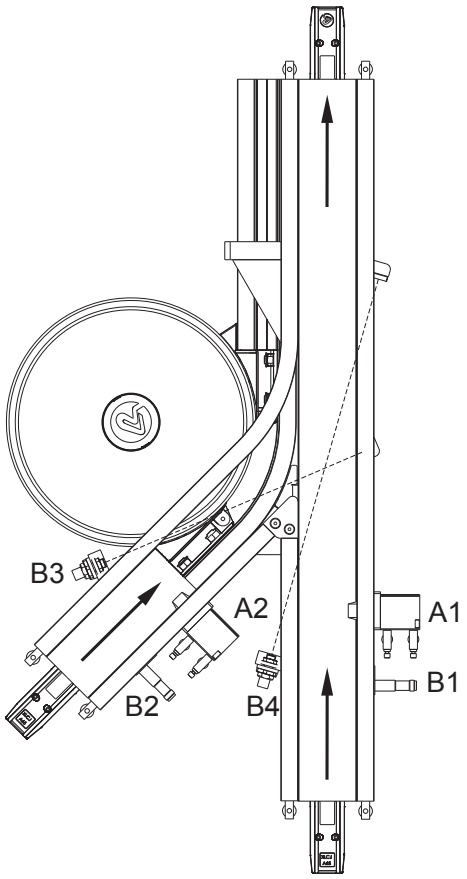


Figure 4 XLUT 45 M (also valid for XLUT 90 M)

Principle of operation

Merging a satellite pallet

A pallet on Satellite is approaching. Sensor **B2** is activated which actuates stop **A2** which stops the pallet, if function is occupied.
Sensor **B3** and **B4** supervise the function area. If both sensors gives low signal the area is empty.

Straight passing through:

A pallet on Highway is approaching. The pallet activates sensor **B1** which actuates stop **A1** which stops the pallet if function is occupied.
Sensor **B3** and **B4** supervise the function area. If both sensors gives low signal the area is empty.

Function occupied

Before a pallet is let into the function the previous flow must be finished and the downstream receiver be ready to receive. Example: Previous flow was straight. Pallet enters on Satellite to be merged. Stop **A2** block the flow, then wait until **B3** and **B4** do not detect any pallets. When downstream Highway is ready to receive, then pallet on Satellite is released by stop **A2**.

Sensors

The primary function of in position sensors **(B1, B2)** is to detect pallet placed in specific position. Additionally the sensors are placed in the way they can actuate stop (open/blocking) before pallet gets into contact with the stop up to conveyor speed 20 m/min.

3.2.2 Cylinder details

Cylinder A1 and A2 "Pre-stop"

Type: Single acting with two ports.

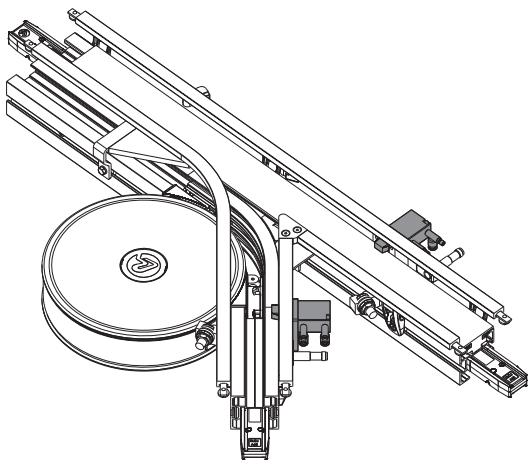
Function:

- Pressurized: Releases the pallet flow
- No pressure: Blocks the pallet flow

For safety reasons, the pallet stop is blocking the flow in case of a pressure drop, preventing pallets from travelling uncontrolled along the conveyor.

The stop should not re-block the flow while a pallet puck is in a position where it could be clamped.

It is recommended to re-block the flow after each pallet.



Cylinder A1 and A2

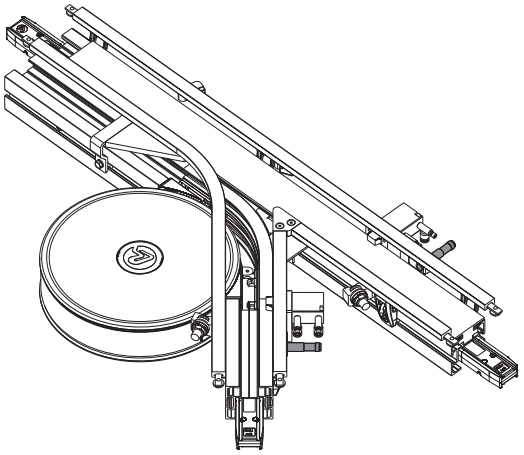
3.2.3 Sensor details

Sensor B1 and B2 "Pre-stop"

Type: Proximity switch, inductive
Position: Placed together with Pre-stop.

Function: Detects the initiator plate of the pallet before the pallet is stopped and stays active until the pallet leaves the stop.

The reason why the pallet is detected by the sensor before the pallet hits the stop, is to enhance the efficiency of the pallet flow. As the pallet is detected in advance, the controller has time to take a decision whether or not the pallet should be stopped. If it should pass, the stop changes state to ”Release flow” before the pallet reaches it.

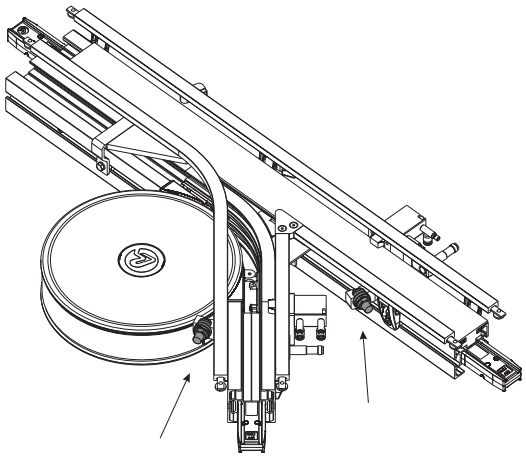


Sensor B1 and B2

Sensor B3 and B4 "Sensing pallet route"

Type: Photo eye.

Function: Detects if there is a pallet in the merging area. A new pallet must not be released from any of the stop positions before the merging area is clear.



Sensor B3 and B4

3.3 Function description for Divert and Merge modules 45°

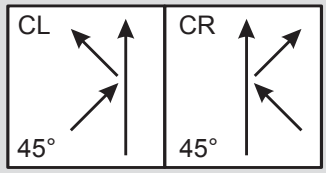
The combiner function gives the opportunity to split and join highway to satellite/ satellite to highway flows in a fully controlled way. The function is equipped with all needed parts to setup and run it, including set of sensors (not mandatory), RFID read/write head (not mandatory), fasteners and pneumatic actuators.

Excluded parts:

- Chain
- Slide rails for chain and guide rails
- Tubes for pneumatic circuit
- Pallets
- Cables (for sensors), RFID r/w head

3.3.1 Combined Diverter/Mergers

A Combined diverter/merger is used to create a sub line for example to guide pucks out and in on a satellite conveyor from the main conveyor.



This function has the behaviour from both the diverter and the merger. The prioritized order can be predetermined or decided dynamically from a line controller.

There are two variants of the 45° Combined Diverter/Merger.

- Combined Diverter/Merger, 45°, Left
- Combined Diverter/Merger, 45°, Right

Initiators
B1 Pre-stop highway
B2 Pre-stop satellite
B3 and B4 Sensing pallet route
B5 and B6 position of diverter arm
B7 RFID head

Actuators
A1 and A2 Pre-stop. Single acting
A3 Arm. Double acting

Interfaces
B1-B6 M12-connector, 3-pin
B7 RFID 4-pin (ASI)
A1 Ø 6 mm pneumatic hose
A2 Ø 6 mm pneumatic hose
A3 Ø 6 mm pneumatic hose

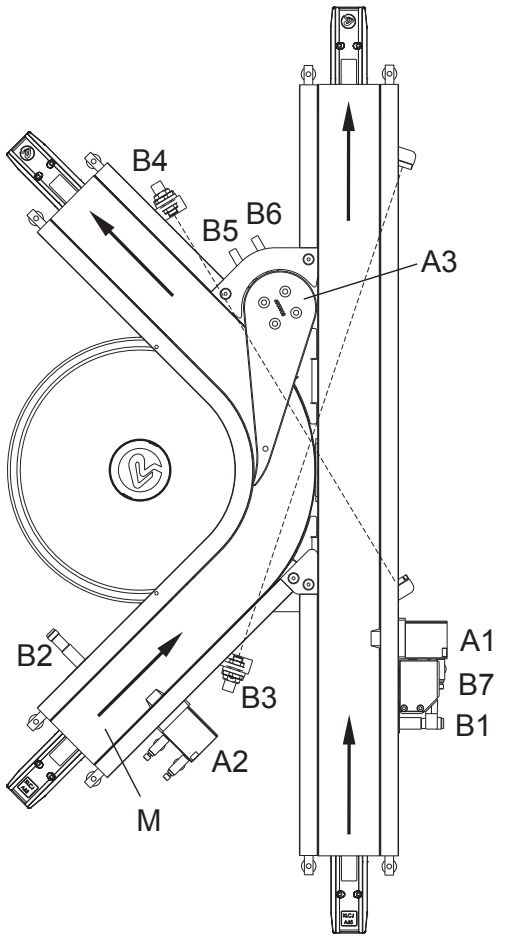


Figure 5 XLUT 45 C

Principle of operation

Merging a satellite pallet:

A pallet on Satellite (M) is approaching. Sensor **B2** is activated which actuates stop **A2** which stops the pallet, if function is occupied. Sensor **B3** and **B4** supervise the function area. If both sensors gives low signal the area is empty.

Diverting pallet to satellite:

A pallet on Highway is approaching. Sensor **B1** is activated which actuates stop A1 which stops the pallet, if function is occupied.
Sensor **B3** and **B4** supervise the function area. If both sensors gives low signal the area is empty.

Straight passing through:

A pallet on Highway is approaching. The pallet activates sensor **B1** which actuates stop **A1** which stops the pallet if function is occupied. Sensor **B3** and **B4** supervise the function area. If both sensors gives low signal the area is empty.

Function occupied:

Before a pallet is let into the function the previous flow must be finished, the arm to be in right position and downstream receiver be ready to receive. Example: Previous flow was straight. Pallet enters on Satellite (M) to be merged. Stop **A1** block the flow, then wait until **B3** and **B4** do not detect any pallets. When downstream Highway is ready to receive, then pallet on Satellite (M) is released by stop **A2.**

Sensors:

The primary function of in position sensors **(B1, B2)** is to detect pallet placed in specific position. Additionally the sensors are placed in the way they can actuate stop (open/blocking) before pallet gets into contact with the stop up to conveyor speed 20 m/min.

RFID:

The RFID head **B7** can be used to read/write RFID tag data on pallet. The data can be used to take flow decisions at crossings, for example at stop **A1**

3.3.2 Cylinder details

Cylinder A1 and A2 "Pre-stop"

Type: Single acting with two ports.

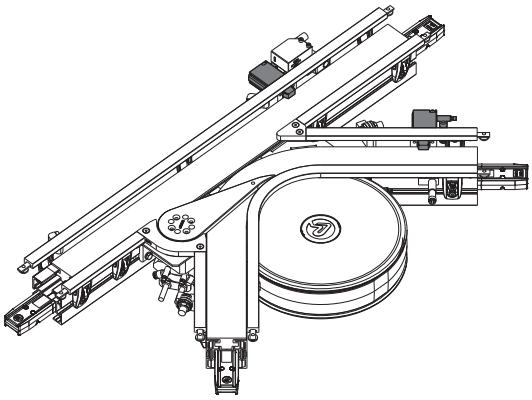
Function:

- Pressurized: Releases the pallet flow
- No pressure: Blocks the pallet flow

For safety reasons, the pallet stop is blocking the flow in case of a pressure drop, preventing pallets from travelling uncontrolled along the conveyor.

The stop should not re-block the flow while a pallet puck is in a position where it could be clamped.

It is recommended to re-block the flow after each pallet.

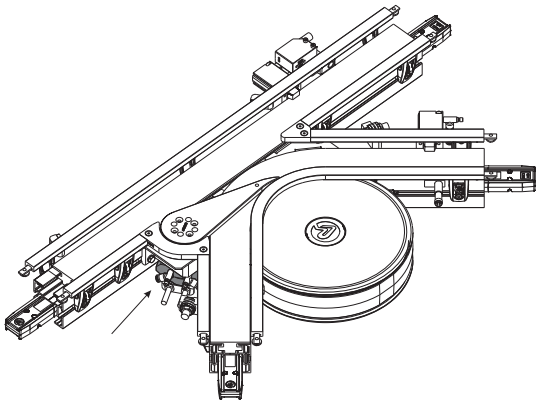


Cylinder A1 and A2

Cylinder A3 "Arm"

Type: Double acting

Function: Change the flow through the module.



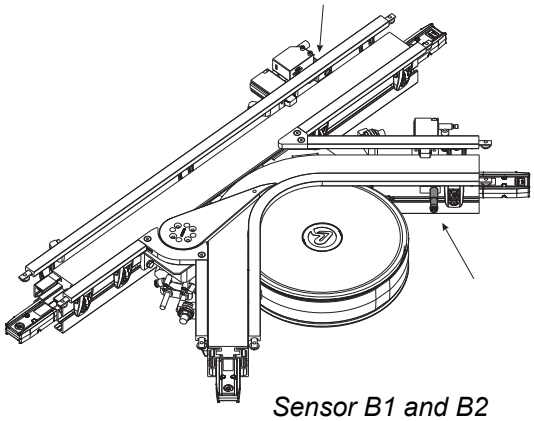
Cylinder A3

3.3.3 Sensor details

Sensor B1 and B2 "Pre-stop"

Type: Proximity switch, inductive
Position: Placed together with Pre-stop.

Function: Detects the initiator plate of the pallet before the pallet is stopped and stays active until the pallet leaves the stop.
The reason why the pallet is detected by the sensor before the pallet hits the stop, is to enhance the efficiency of the pallet flow. As the pallet is detected in advance, the controller has time to take a decision whether or not the pallet should be stopped. If it should pass, the stop changes state to ”Release flow” before the pallet reaches it.

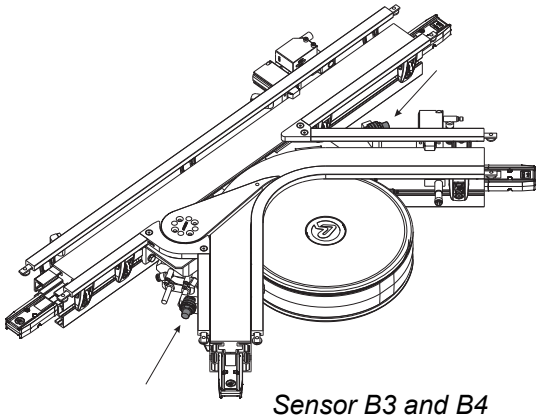


Sensor B1 and B2

Sensor B3 and B4 "Sensing pallet route"

Type: Photo eye.

Function: Detects if there is a pallet in the merging area. A new pallet must not be released from any of the stop positions before the merging area is clear.

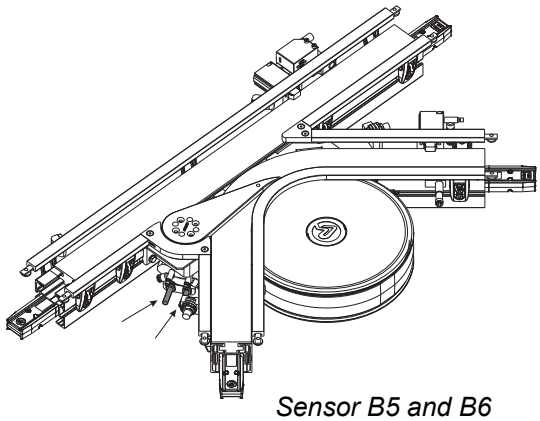


Sensor B3 and B4

Sensor B5 and B6 "Arm"

Type: Cylinder sensor
Position: Placed on the arm cylinder.

Function: Detects the arm position.



Sensor B5 and B6

3.4 Function description for Divert and Merge module 90°

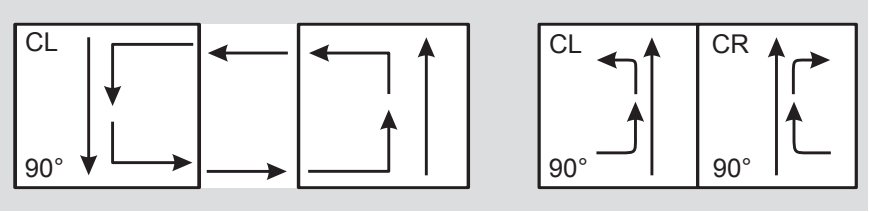
The combiner function gives the opportunity to split and join highway to satellite/ satellite to highway flows in a fully controlled way. The function is equipped with all needed parts to setup and run it, including set of sensors (not mandatory), RFID read/write head (not mandatory), fasteners and pneumatic actuators.

Excluded parts:

- Chain
- Slide rails for chain and guide rails
- Tubes for pneumatic circuit
- Pallets
- Cables (for sensors), RFID r/w head

3.4.1 Combined Diverter/mergers

A combined diverter/merger are used to create a sub line for example to guide pucks out and in on a satellite conveyor from the main conveyor. They can also be used as "shortcuts".



Example where two 90° CL are used to make a "shortcut".
This function has the behaviour from both the diverter and the merger. The prioritized order can be predetermined or decided dynamically from a line controller.

There are two variants of the 90° Combined Diverter/Merger.

- Combined Diverter/Merger, 90°, Left
- Combined Diverter/Merger, 90°, Right

Initiators
B1 Pre-stop highway
B2 Pre-stop satellite
B3 and B4 Sensing pallet route
B5 and B6 position of diverter arm
B7 RFID head

Actuators
A1 and A2 Pre-stop. Single acting
A3 Arm. Double acting

Interfaces
B1-B6 M12-connector, 3-pin
B7 RFID 4-pin (ASI)
A1 Ø 6 mm pneumatic hose
A2 Ø 6 mm pneumatic hose
A3 Ø 6 mm pneumatic hose

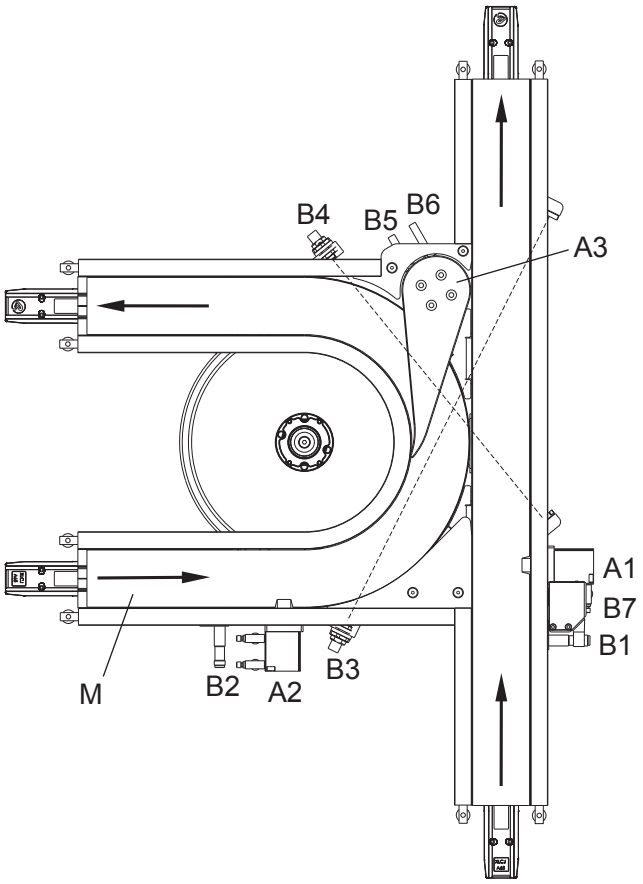


Figure 6 XLUT 90 C

Principle of operation

Merging a satellite pallet:

A pallet on Satellite (M) is approaching. Sensor **B2** is activated which actuates stop **A2** which stops the pallet, if function is occupied. Sensor **B3** and **B4** supervise the function area. If both sensors give low signal the area is empty.

Diverting pallet to satellite:

A pallet on Highway is approaching. Sensor **B1** is activated which actuates stop **A1** which stops the pallet, if function is occupied.
Sensor **B3** and **B4** supervise the function area. If both sensors give low signal the area is empty.

Straight passing through:

A pallet on Highway is approaching. The pallet activates sensor **B1** which actuates stop **A1** which stops the pallet if function is occupied. Sensor **B3** and **B4** supervise the function area. If both sensors give low signal the area is empty.

Function occupied:

Before a pallet is let into the function the previous flow must be finished, the arm to be in right position and downstream receiver be ready to receive. Example: Previous flow was straight. Pallet enters on Satellite (M) to be merged. Stop **A1** block the flow, then wait until **B3** and **B4** do not detect any pallets. When downstream Highway is ready to receive, then pallet on Satellite (M) is released by stop **A2**.

Sensors:

The primary function of in position sensors **(B1, B2)** is to detect pallet placed in specific position. Additionally the sensors are placed in the way they can actuate stop (open/blocking) before pallet gets into contact with the stop up to conveyor speed 20 m/min.

RFID:

The RFID head **B7** can be used to read/write RFID tag data on pallet. The data can be used to take flow decisions at crossings, for example at stop **A1.**

3.4.2 Cylinder details

Cylinder A1 and A2 "Pre-stop"

Type: Single acting with two ports.

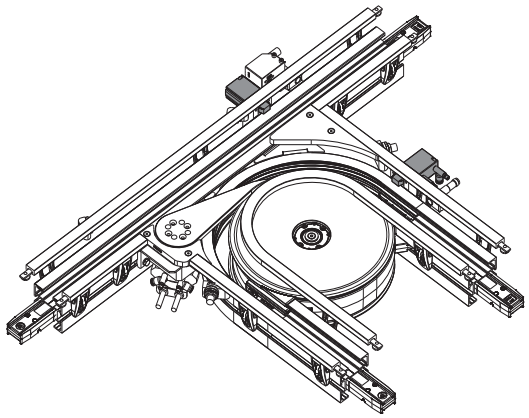
Function:

- Pressurized: Releases the pallet flow
- No pressure: Blocks the pallet flow

For safety reasons, the pallet stop is blocking the flow in case of a pressure drop, preventing pallets from travelling uncontrolled along the conveyor.

The stop should not re-block the flow while a pallet puck is in a position where it could be clamped.

It is recommended to re-block the flow after each pallet.

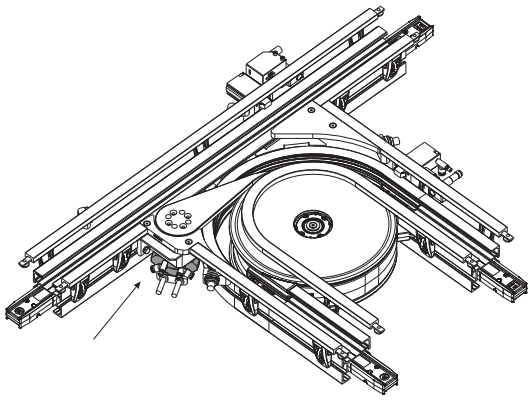


Cylinder A1 and A2

Cylinder A3 "Arm"

Type: Double acting

Function: Change the flow through the module.



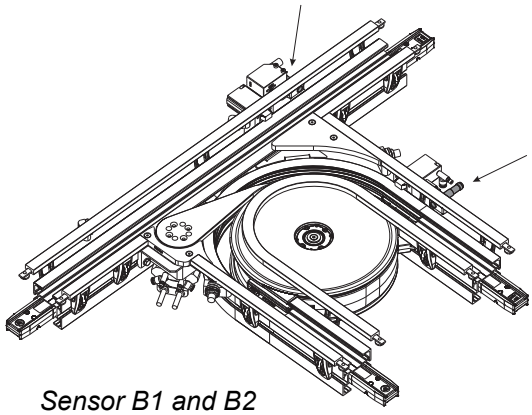
Cylinder A3

3.4.3 Sensor details

Sensor B1 and B2 "Pre-stop"

Type: Proximity switch, inductive
Position: Placed together with Pre-stop.

Function: Detects the initiator plate of the pallet before the pallet is stopped and stays active until the pallet leaves the stop.
The reason why the pallet is detected by the sensor before the pallet hits the stop, is to enhance the efficiency of the pallet flow. As the pallet is detected in advance, the controller has time to take a decision whether or not the pallet should be stopped. If it should pass, the stop changes state to ”Release flow” before the pallet reaches it.

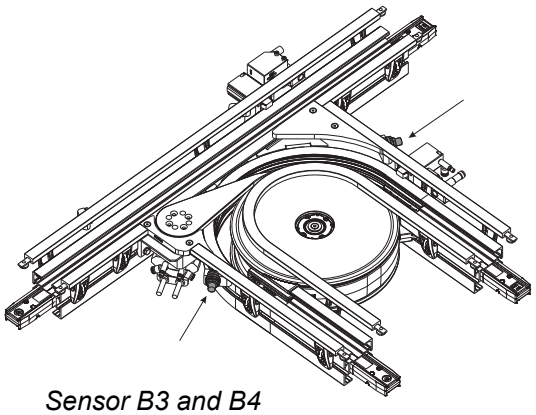


Sensor B1 and B2

Sensor B3 and B4 "Sensing pallet route"

Type: Photo eye.

Function: Detects if there is a pallet in the merging area. A new pallet must not be released from any of the stop positions before the merging area is clear.

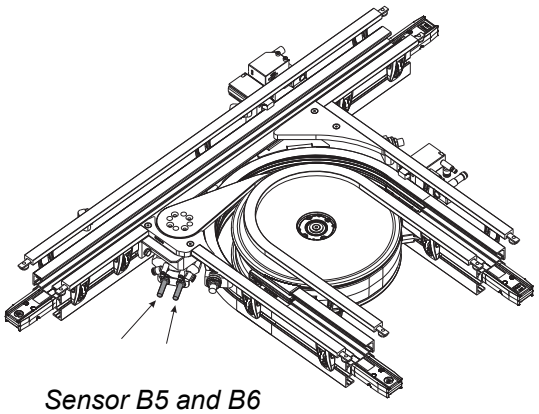


Sensor B3 and B4

Sensor B5 and B6 "Arm"

Type: Cylinder sensor
Position: Placed on the arm cylinder.

Function: Detects the arm position.



Sensor B5 and B6

4 Unload the X65 function modules

4.1 Preparation

This section describes the steps that are required for unloading the modules for the X65 system. It is recommended to make use of the devices described. When using this or another device this device is expected to be provided with a quality mark.

Note! *The operations concerned are to be carried out calmly in order to be able to carefully monitor any movement of the X65 module.*

Before starting the unloading a good preparation is required. The appropriate devices must be available. Apart from that the first transport check is an important part of the unloading, as in case of damage this should be mentioned on the delivery note in relation to guarantee and the like.

After arrival of the modules a transport check is to be carried out. The check can be carried out at the moment the module has been unloaded from the container or the truck. The technical specification gives the dimensions to be checked. Is the module delivered undamaged and is it the correct module?

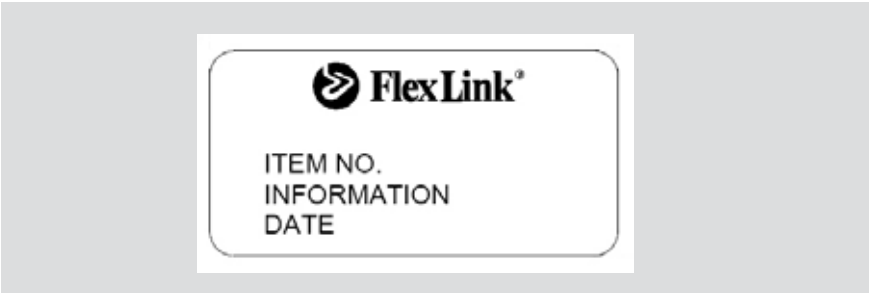


Figure 7 Module serial number type plate with configurator string

Note! *Any damage is to be mentioned on the delivery note and should immediately be reported to the supplier. This with respect to the guarantee of the module.*

4.2 Unloading instructions

Before starting unloading, all fastening means (securing belts, screws, etc.) that secure the module into the means of transport must be removed. Subsequently check whether the transport supports are still connected well to the module. After this the unloading procedure may be started.

4.2.1 Introduction

4.2.1.1 Accessories and spare parts

Spare parts for the X65 modules can also be ordered. See Recommended spare parts on page 36

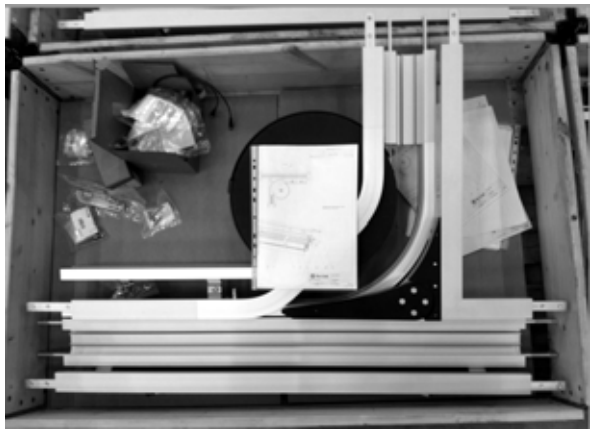
4.2.1.2 Ordering process

Every X65 module has its own unique order code which can be found in each module description. The various options available for each module are shown in the order code and all the parameters have to be specified when ordering.

It is important to know that by ordering for example a conveyor module, you do not automatically get a support module. This has to be ordered separately.

4.2.1.3 Shipment

Modules are delivered in std eur pallet 1200x800.



5 Mounting, installation, adjustment

This section deals with the operations to have the modules function well within a (transport) system. First section 1.2 on page 4, in which the provisions to be taken care of are given, should be studied carefully. section 1.3 on page 6 is particularly important for the modules that are delivered to the end user not fully assembled.

5.1 Recommended tools

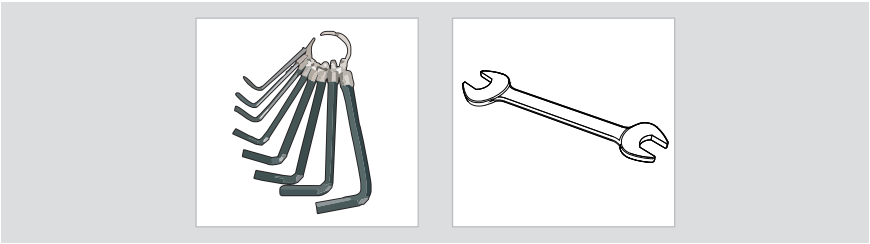


Figure 8 Tools

5.2 Basic value, Torque for dimension

Basic value, Torque for dimension			
M5	M6	M8	M10
4 Nm / 35 lb. in.	9 Nm / 80 lb. in.	24,5 Nm / 217 lb.in.	45 Nm / 398 lb.in.

Figure 9 Basic value

Make sure before integrating (section 1.4 on page 7) that the surroundings are clean and free from obstacles and the mounting surface is clean and level. Besides, it should be repeated that the operations are to be carried out in a calm and controlled way!

After having placed the modules in the correct position, the modules is to be fastened to the mounting surface by using the holes in the adjusting feet.

5.2.1 Mounting instruction, XLUT 45 D and XLUT 90 D

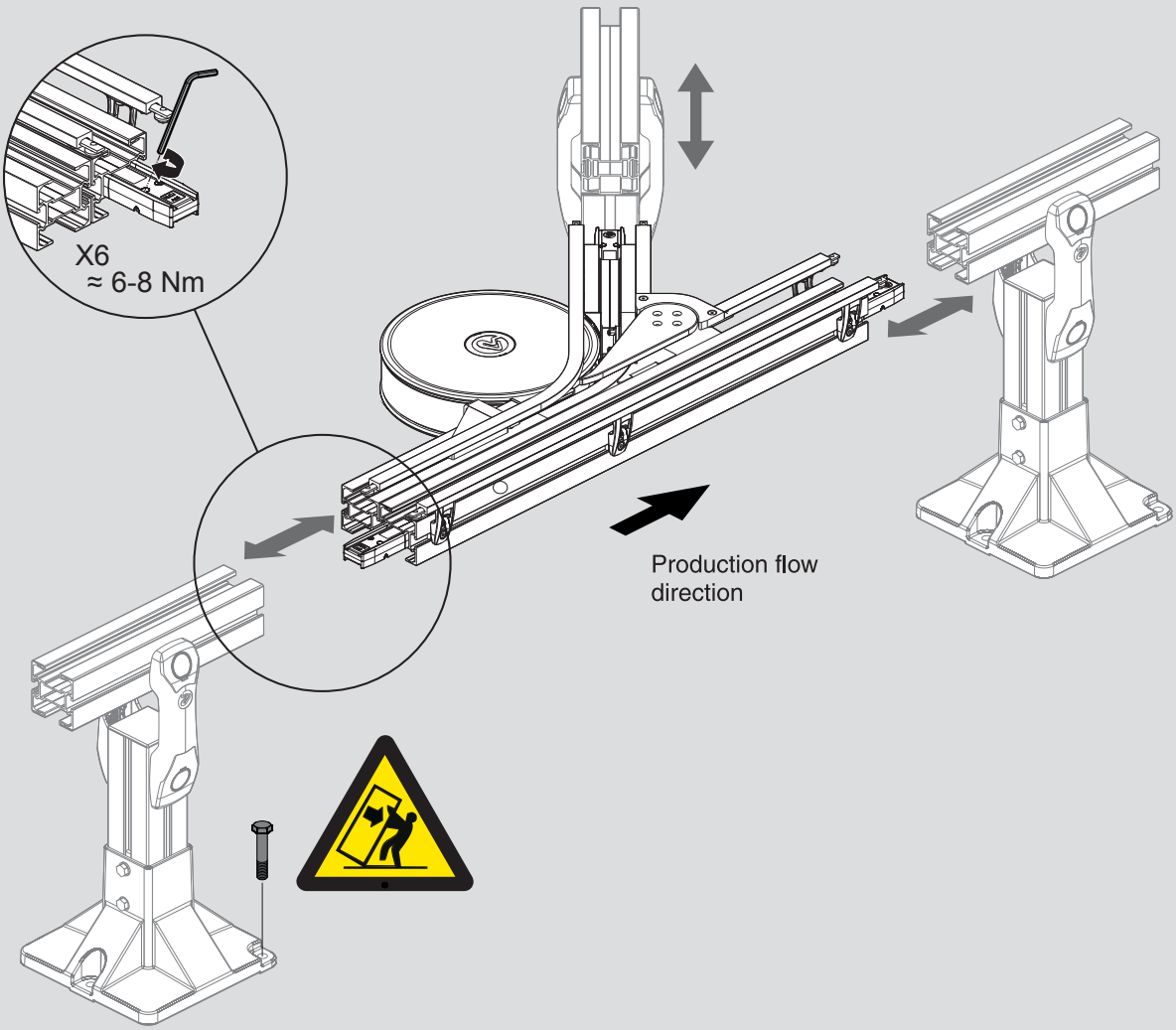
SAFETY

WARNING
The system must not be operated without safety equipment properly mounted.

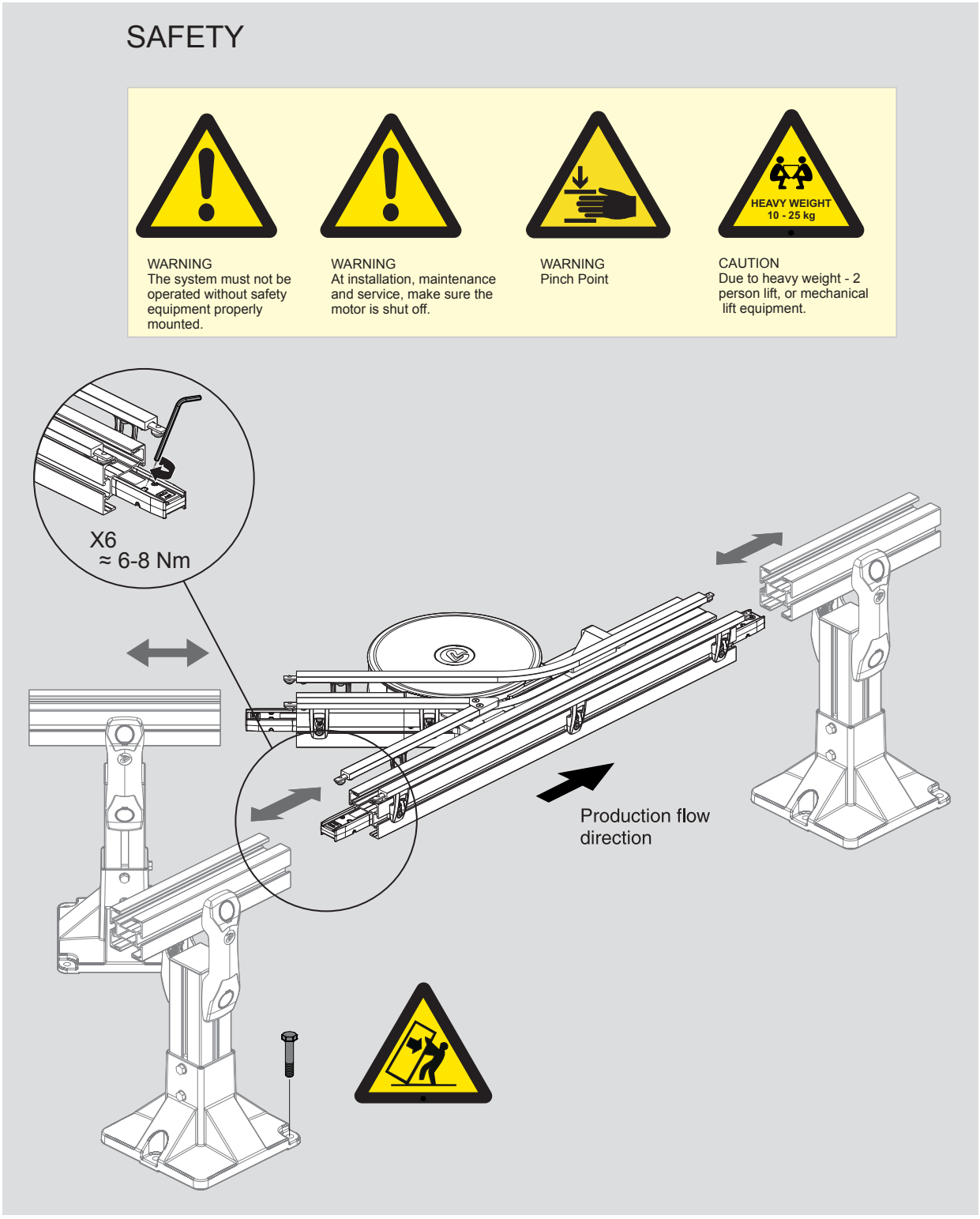
WARNING
At installation, maintenance and service, make sure the motor is shut off.

WARNING
Pinch Point

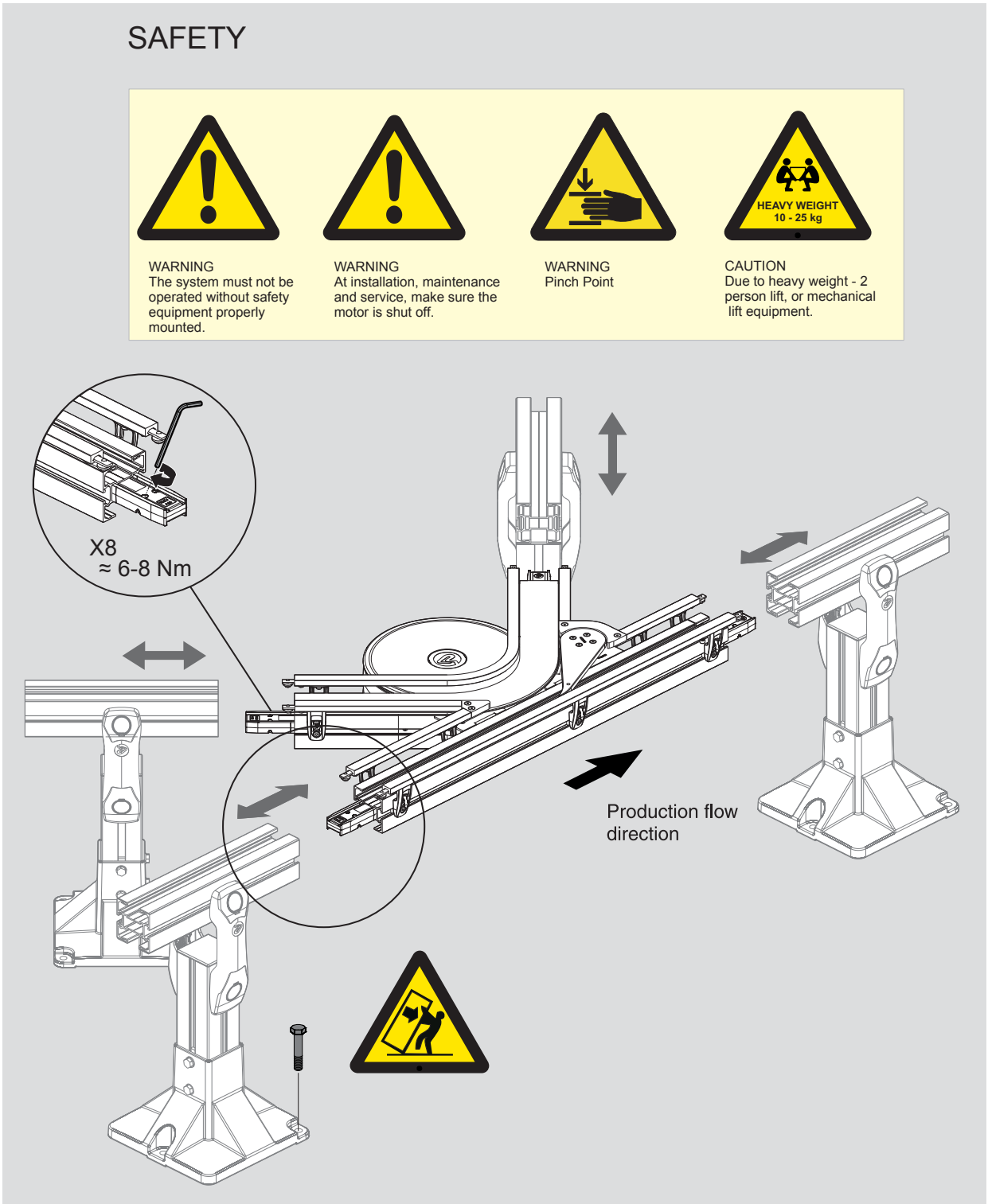
CAUTION
Due to heavy weight - 2 person lift, or mechanical lift equipment.



5.2.2 Mounting instruction, XLUT 45 M and XLUT 90 M



5.2.3 Mounting instructions, XLUT 45 C and XLUT 90 C



6 Put out of commission

At the moment a module is put out of operation for some reason, a number of steps are to be taken in order to avoid dangerous situations. This section clearly indicates how one should proceed in a number of cases with respect to uncoupling, dismounting, transport and reuse of materials coming from the elevator

6.1 Disconnect the power sources

Prior to starting the dismounting, the voltage is to be cut off from the power source. First the main switch is to be switched off before the power source can be disconnected.

Danger: *First switch off the main switch before the power source may be disconnected.*

6.2 Disassemble

While dismounting the machine, the regulations for waste processing applicable on the place and at the time of the dismantling are to be complied with. The machine only contains commonly known materials. At the time of assembling the module there were processing possibilities for this and no particular risks were known for persons involved in dismantling. The disassembly of the module generally requires few operations. The module can be disposed of in the same way as it was delivered.

Note! *At the time of assembling the modules there were processing possibilities for this and no particular risks were known for persons involved in dismantling.*
Dust, dirt and liquides can accumulate in different cavities in the module. Use appropriate personal protection during disassembly.

6.3 Reuse

No fixed rules have been made up for reuse of the modules, because the module does not contain any hazardous substances. At the time of assembling the module there were processing possibilities for this and no particular risks were known for persons involved in the reuse.

Note! *Putting the* module *out of operation with all operations involved may only be done by technically qualified personnel.*

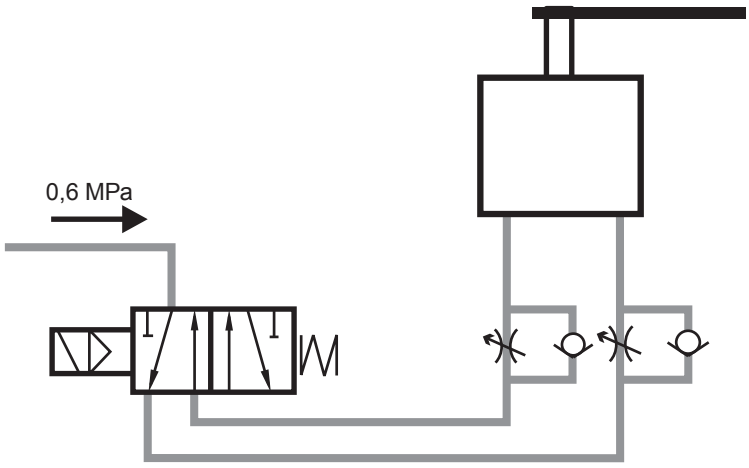
7 Recommended spare parts

Description	Std name	Manufacturer	Type	External order no	FlexLink order no.
Prestop initiator	Sensor	SICK	IM12-08NPS-ZC1	7900045	5058572
Sensor bracket for Prestop initiator	Sensor bracket	FlexLink	-	-	XLPB 12 H
Photoeye for sensing pallet route	Sensor	SICK	MHL 15-P3336	1026129	5058929
Bracket for photoeye	Bracket	FlexLink	-	-	8050137
Reflector	Reflector	FlexLink	-	-	8050114
Sensor for position of diverter arm	Sensor	Festo	SIEN-M8B-PS-S-L	-	5115023
Connector M8 - M12	Connector	Murr	7000-42201-0000000	-	5113472
RFID reader/writer	RFID r/w	IFM Electronic	-	DTA100	5058152

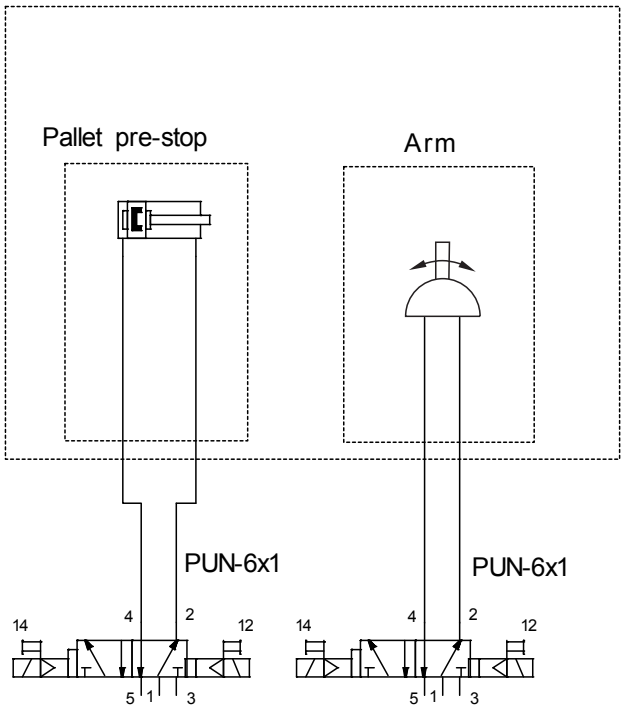
8 Drawings

8.1 Pneumatic drawing

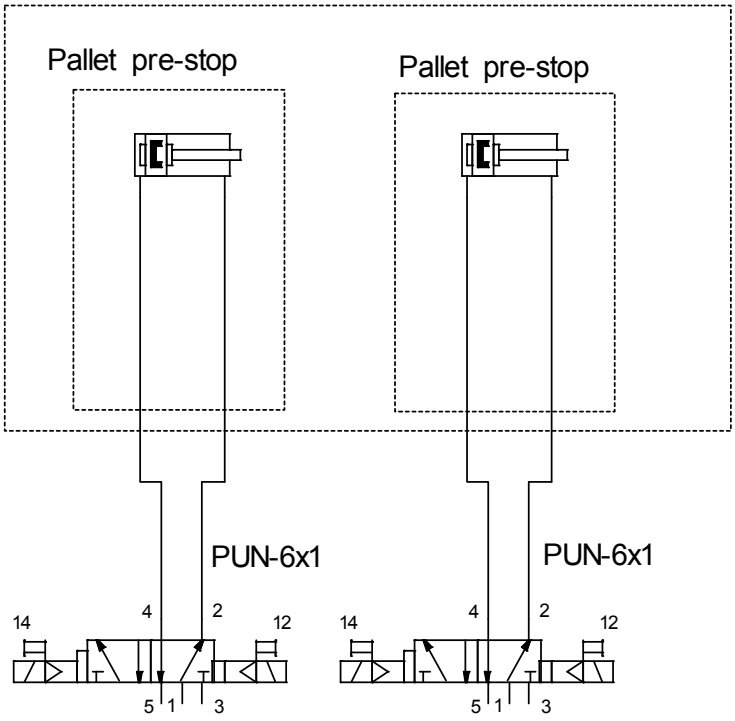
Applies to Diverter and Combined divert/merge.



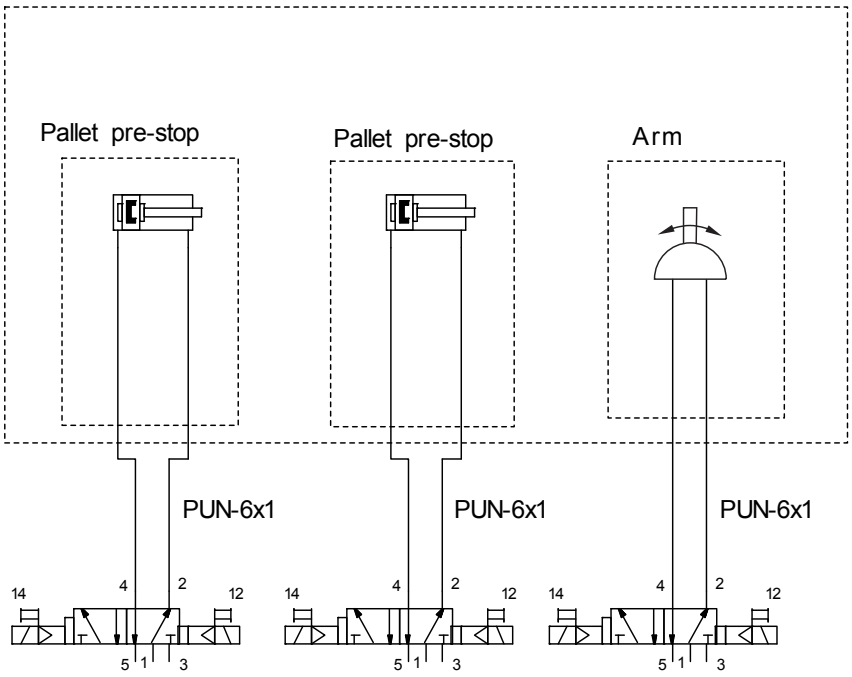
8.1.1 XLUT 45 D and XLUT 90 D



8.1.2 XLUT 45 M and XLUT 90 M



8.1.3 XLUT 45 C and XLUT 90 C



9 Supplier’s information

This manual goes together with the module of the type mentioned on the order and on the title page of this manual. This document was drawn up by:

FlexLink Components AB

Date: 2013/03/11

Copyright: FlexLink Sweden, 2013

The machine was produced by:

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SE-415 50 Göteborg	Fax:	+46 (0)31-337 31 95
Sweden	E-mail:	info@FlexLink.se
		www.FlexLink.com

Note! *In case of failures please contact the system integrator.*

EC Declaration of Incorporation

Partly complied machinery

FlexLink Components AB
SE-41550 Göteborg
Sweden

We hereby declare that the following equipment is intended to be incorporated into a FlexLink conveyor system and thereby forming a machine. Operation is prohibited until it has been determined that the machine in which these products are incorporated, has been declared in conformity with the Machinery Directive 2006/42/EC, together with amendments which have entered into force as of the date of issue of this declaration, with particular reference to the essential health and safety requirements in connection with the design, construction and manufacture of the below specified equipment.

Function modules X65

- XLUT 45 D and XLUT 90 D
- XLUT 45 M and XLUT 90 M
- XLUT 45 C and XLUT 90 C

According to 2004/108/EC Electromagnetic Compatibility Directive (EMC), the listed device is not independently operable product, but intended as part of a given fixed installation. Compliance of the directive requires the correct installation of the product, the observance of specific installation notes and product documentation.

FlexLink Components AB

Svante Anderholm
Chief Operating Officer

FlexLink Components AB

Fredrik Sandinge
Responsible Technical file

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